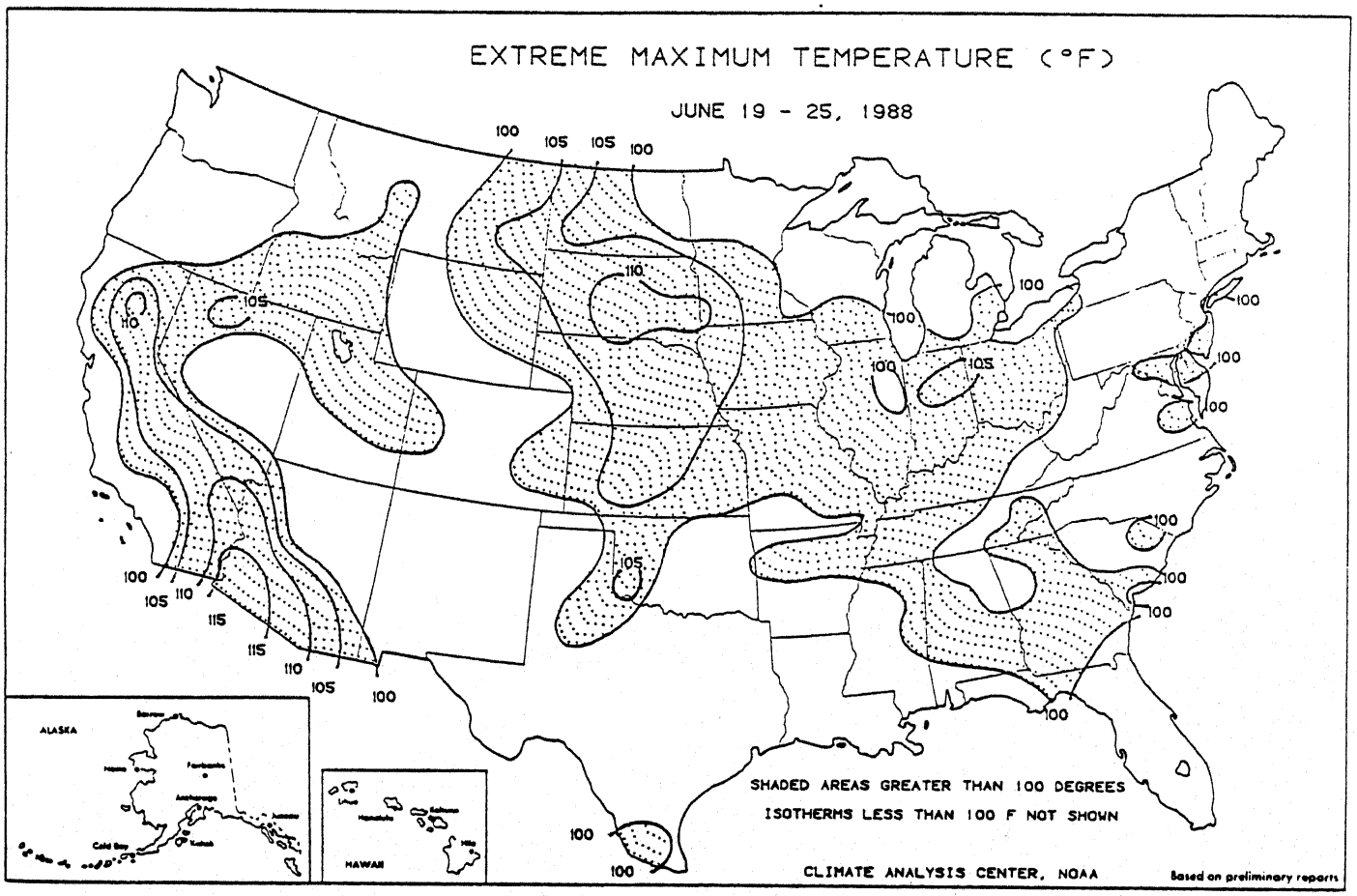
CLIMATE ANALYSIS CENTER

WEEKLY CLIMATE BULLETIN

No. 88/26 Washington, DC June 25, 1988



MUCH OF THE CENTRAL AND NORTHERN GREAT PLAINS, MIDWEST, SOUTHEAST, AND MID-ATLANTIC REGIONS RECORDED TEMPERATURES EQUALING OR EXCEEDING 100°F AT LEAST ONCE LAST WEEK AS THE HOT WEATHER EXACERBATED THE AREAS ABNORMALLY DRY CONDITIONS.

NOAA - NATIONAL WEATHER SERVICE - NATIONAL METEOROLOGICAL CENTER

WEEKLY CLIMATE BULLETIN

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This Bulletin is issued weekly by the Climate Analysis Center and is designed to indicate, in a brief, concise format, current surface climatic conditions in the United States and around the world. The Bulletin contains:

Highlights of major global climatic events and anomalies.
U.S. climatic conditions for the previous week.
U.S. apparent temperatures (summer) or wind chill (winter).
Global two-week temperature anomalies.
Global four-week precipitation anomalies.
Global monthly temperature and precipitation anomalies.
Global three-month precipitation anomalies (once a month).
Global twelve-month precipitation anomalies (every 3 months).
Global temperature anomalies for winter and summer seasons.
Special climate summaries, explanations, etc. (as appropriate).

Most analyses contained in this Bulletin are based on preliminary, unchecked data received at the Center via the Global Telecommunication System. Similar analyses based on final, checked data are likely to differ to some extent from those presented here.

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GLOBAL HIGHLIGHTS

MAJOR CLIMATIC EVENTS AND ANOMALIES AS OF JUNE 25, 1988
(Approximate duration of anomalies is in brackets.)

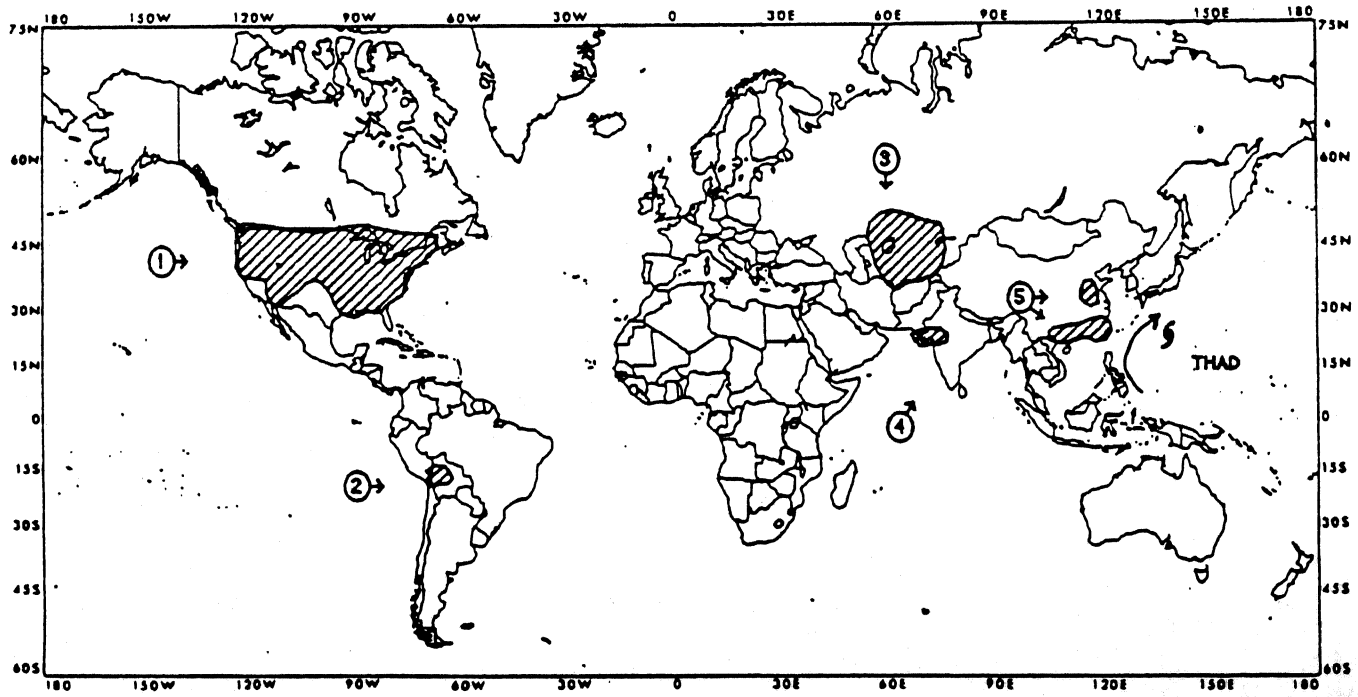
1. United States and Adjacent Southern Canada:
WARM, DRY CONDITIONS PERSIST.
Little or no precipitation fell across much of the central and eastern United States; however, moderate to heavy precipitation, up to 98 mm (3.86 inches), fell in New England and along the Gulf Coast. Unusually warm conditions persisted in the north central states with temperatures as much as 9.5°C (17.1°F) above normal. See U.S. Weekly Weather Highlights for additional details [15 weeks dry - 8 weeks warm].

2. South America:
COLD CONDITIONS DIMINISH.
Temperatures returned to near normal except for a few stations in west central Bolivia [Ended at 5 weeks].

3. Kazakh S.S.R.:
VERY WARM CONDITIONS PREVAIL.
Unusually high temperatures occurred across much of the Kazakh S.S.R. and adjacent Soviet Socialist Republics and were as much as 5.8°C (10.4°F) above normal [6 weeks].

4. Central India:
RAINS BRING RELIEF TO MOST AREAS.
Very heavy rains, up to 277.8 mm (10.94 inches), ended dryness in central India; however, little or no precipitation was reported in parts of west central India [6 weeks].

5. China:
DRY CONDITIONS CONTINUE.
Little or no precipitation fell in east central China and in southeastern China as unusually dry weather prevailed. Light to moderate precipitation, generally less than 29.0 mm (1.14 inches), was reported in south central China [4 weeks].



Approximate locations of the major anomalies and events described above are shown on this map. See the other world maps in this Bulletin for current two-week temperature anomalies, four-week precipitation anomalies, and (occasionally) longer-term anomalies.

U.S. WEEKLY WEATHER HIGHLIGHTS

FOR THE WEEK OF JUNE 19 THROUGH JUNE 25, 1988

Heavy precipitation from scattered thunderstorms was limited to locations in northern New England, north-central Iowa, southern Florida, and central Texas, and along the Gulf Coast from southeastern Texas eastward to southern Alabama in association with a weak tropical wave (see Table 1). Largest weekly totals in the South per state, according to the River Forecast Center, were 4.9 inches in south-central Louisiana, 4.6 inches in southwestern Florida, 4.2 inches in extreme southwestern Mississippi, 3.8 inches in east-central Texas, and 3.2 inches east of Mobile, AL. Farther north, maximum rainfall per state totaled 3.0 inches in the extreme northern regions of New York and Vermont, 2.6 inches in northern New Hampshire, and 2.1 inches in northwestern Massachusetts. In the abnormally dry Midwest, isolated stations in north-central Iowa and northeastern Illinois reported up to 2.3 and 2.1 inches, respectively, however, most areas measured little or no rainfall. Light to moderate amounts fell along Washington's coast, from the northern Rockies southward into Nevada and western Utah, across eastern Arizona, central New Mexico, and central Texas, in portions of the northern Great Plains, upper Midwest, and Great Lakes, throughout most of New England, and along the Gulf Coast northward into parts of the southern Appalachian and mid-Atlantic regions. Little or no rain occurred along much of the West Coast, in the Southwest, the central Rockies, from Oklahoma northward into eastern Nebraska and western Iowa, throughout most of the lower Midwest, from eastern Ohio northeastward to New Jersey, in sections of the Florida panhandle, and along the Atlantic Coast from North Carolina southward to northern Florida. Overall, the drought-stricken areas of the northern Great Plains, Midwest, and South received little or no relief last week as most stations continued to measure less than half their normal precipitation since April 1 (see Figure 1).

Well above normal temperatures dominated most of the nation as departures reached up to +17°F in parts of Idaho, Wyoming, and Montana (see Table 2 and Figure 2). Daytime highs equaled or exceeded 100°F at least once last week across much of the northern and central Great Plains, Midwest, Southeast, and mid-Atlantic regions, in addition to the normally hot areas of the desert Southwest and central California (see front cover). Furthermore, many stations throughout the northern, central, and eastern portions of the U.S. set new daily record maximum temperatures during the week as the hot weather further aggravated the abnormally dry conditions in the Great Plains, Midwest, and Southeast. Departures would have been much larger in the eastern third of the country except for cooler weather that invaded the area during the last few days of the week. Slightly below normal temperatures were confined to coastal sections of Washington, California, and eastern Florida, in northwestern New England, and from southeastern New Mexico eastward to southern Mississippi due in part to persistent cloudiness and precipitation. Alaska observed near to slightly below normal temperatures, while Hawaii recorded seasonable readings.

TABLE 1. Selected stations with more than one and a half inches of precipitation for the week.

Tampa/MacDill AFB, FL (MCF)	4.53	Glenview NAS, IL	2.14
Tampa, FL (TPA)	3.73	Massena, NY	2.12
Mt. Washington, NH	3.50	Waterloo, IA	2.08
Ft. Myers, FL	3.40	Alice, TX	1.98
New Orleans/Lake Front,LA (NEW)	3.38	New Orleans, LA (MSY)	1.79
Homestead AFB, FL	3.23	San Antonio, TX	1.78
McComb, MS	2.84	Baton Rouge, LA	1.75
Burlington, VT	2.80	West Palm Beach, FL	1.69
Lake Charles, LA	2.66	Syracuse, NY	1.66
Lafayette, LA	2.43	Utica, NY	1.61
Plattsburg AFB, NY	2.36	Annette Island, AK	1.53

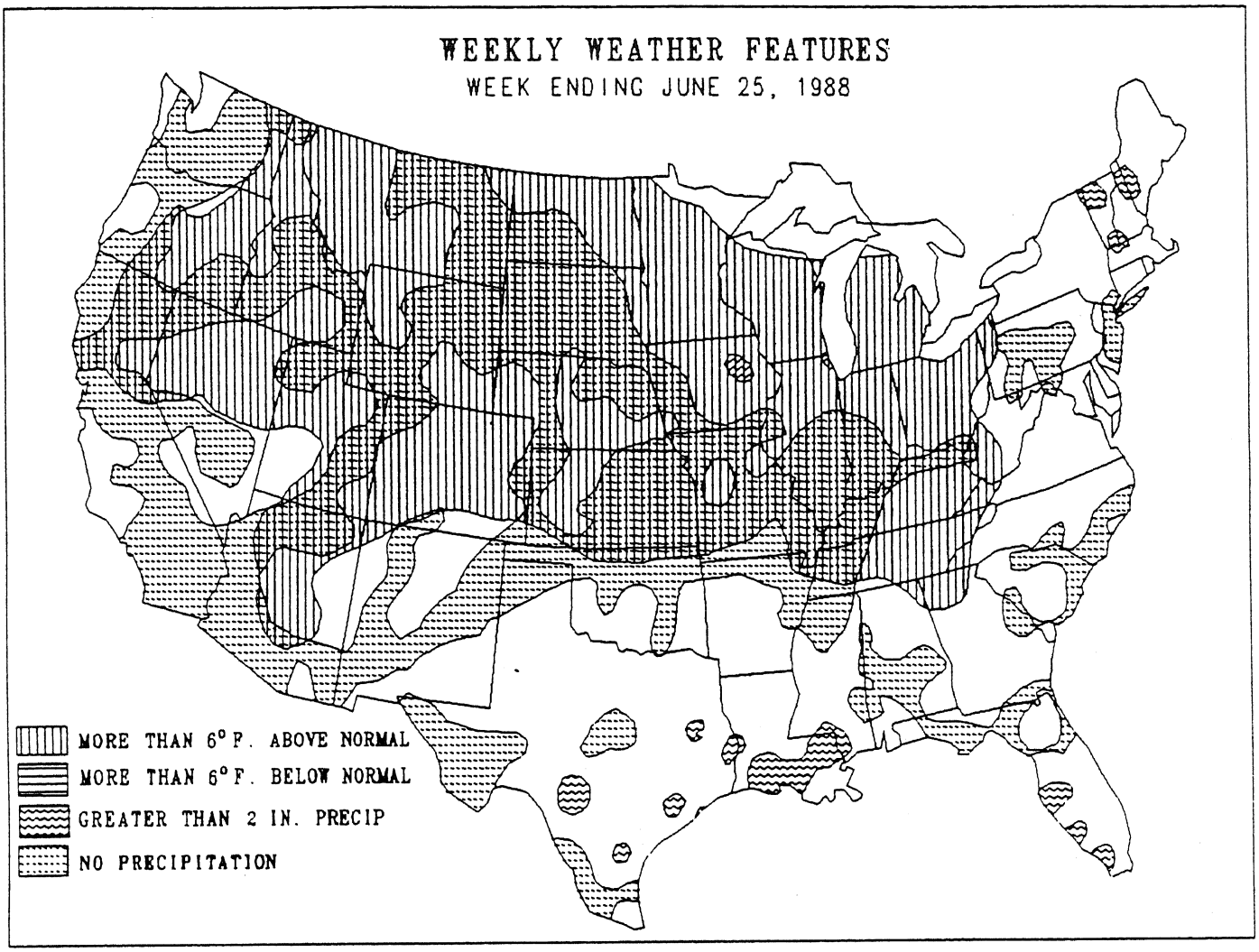


TABLE 2. Selected stations with temperatures averaging greater than 12°F ABOVE normal for the week.

Station	TDepNml	AvgT(°F)	Station	TDepNml	AvgT(°F)
Billings, MT	+17	83	Williston, ND	+14	80
Burley, ID	+17	82	Glasgow, MT	+14	80
Sheridan, WY	+17	81	Great Falls, MT	+14	78
Miles City, MT	+16	85	Idaho Falls, ID	+14	77
Rapid City, SD	+16	84	Norfolk, NE	+13	86
Boise, ID	+16	84	Sioux City, IA	+13	86
Dickinson, ND	+16	81	Valentine, NE	+13	84
Lincoln, NE	+15	89	Salt Lake City, UT	+13	84
Pierre, SD	+15	85	Sioux Falls, SD	+13	84
Worland, WY	+15	82	Huron, SD	+13	83
Bismarck, ND	+15	81	Aberdeen, SD	+13	81
Casper, WY	+15	80	Minot, ND	+13	78
Lander, WY	+15	80	Rock Springs, WY	+13	75
Pocatello, ID	+15	80	Helena, MT	+13	75
Concordia, KS	+14	90	Bozeman, MT	+13	72
Spencer, IA	+14	85	Cut Bank, MT	+13	72

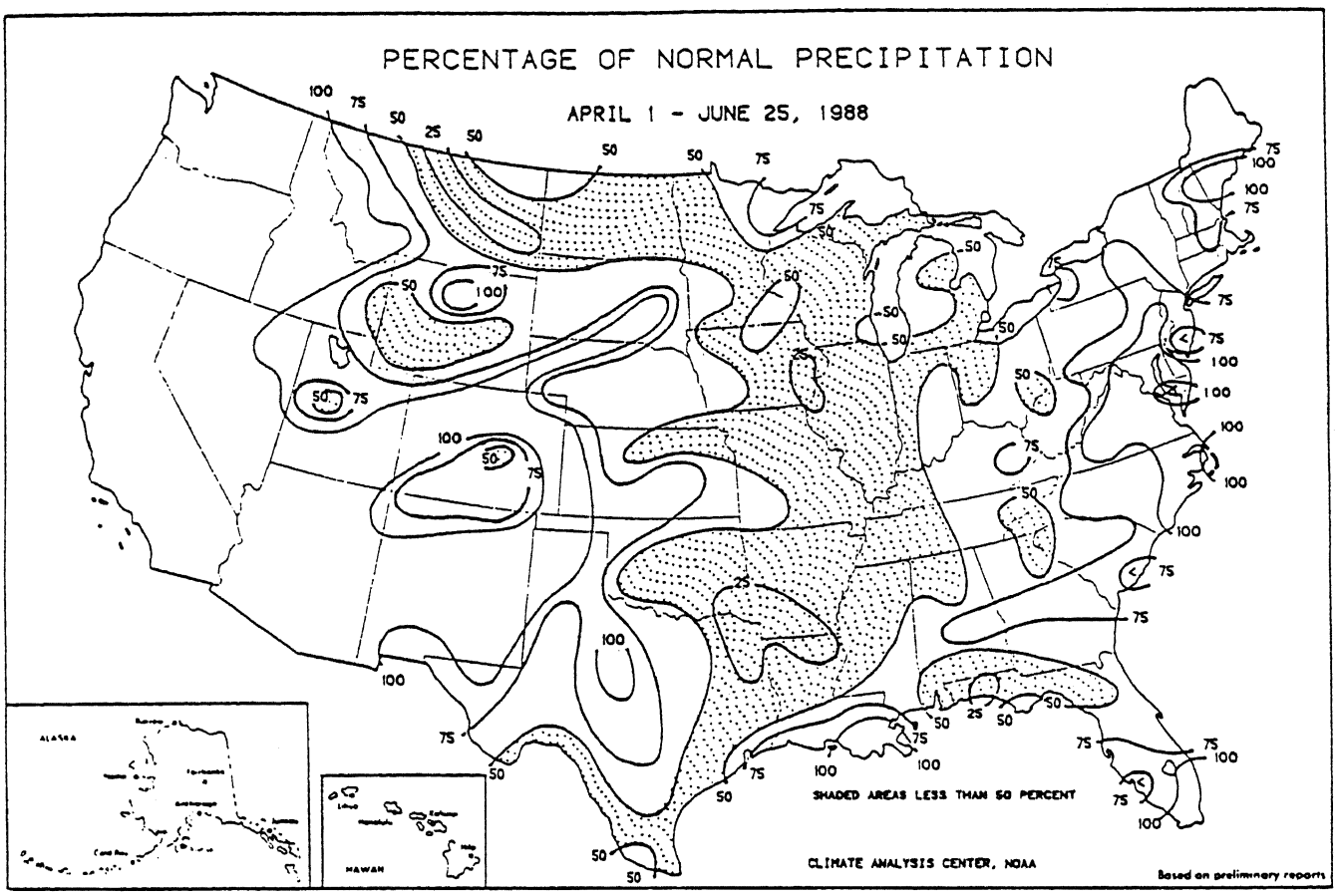


Figure 1. Percent of normal precipitation from April 1 - June 25, 1988. The mid-section of the nation has measured less than half its normal rainfall for almost the past three months.

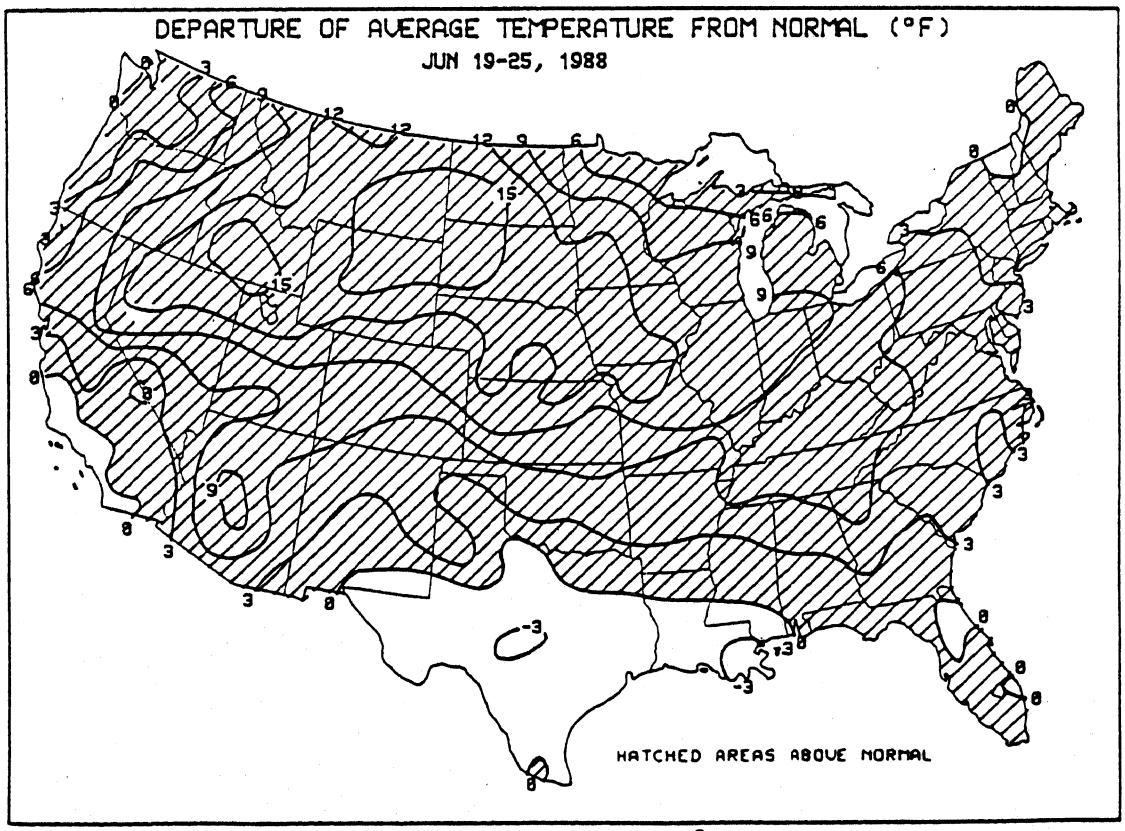
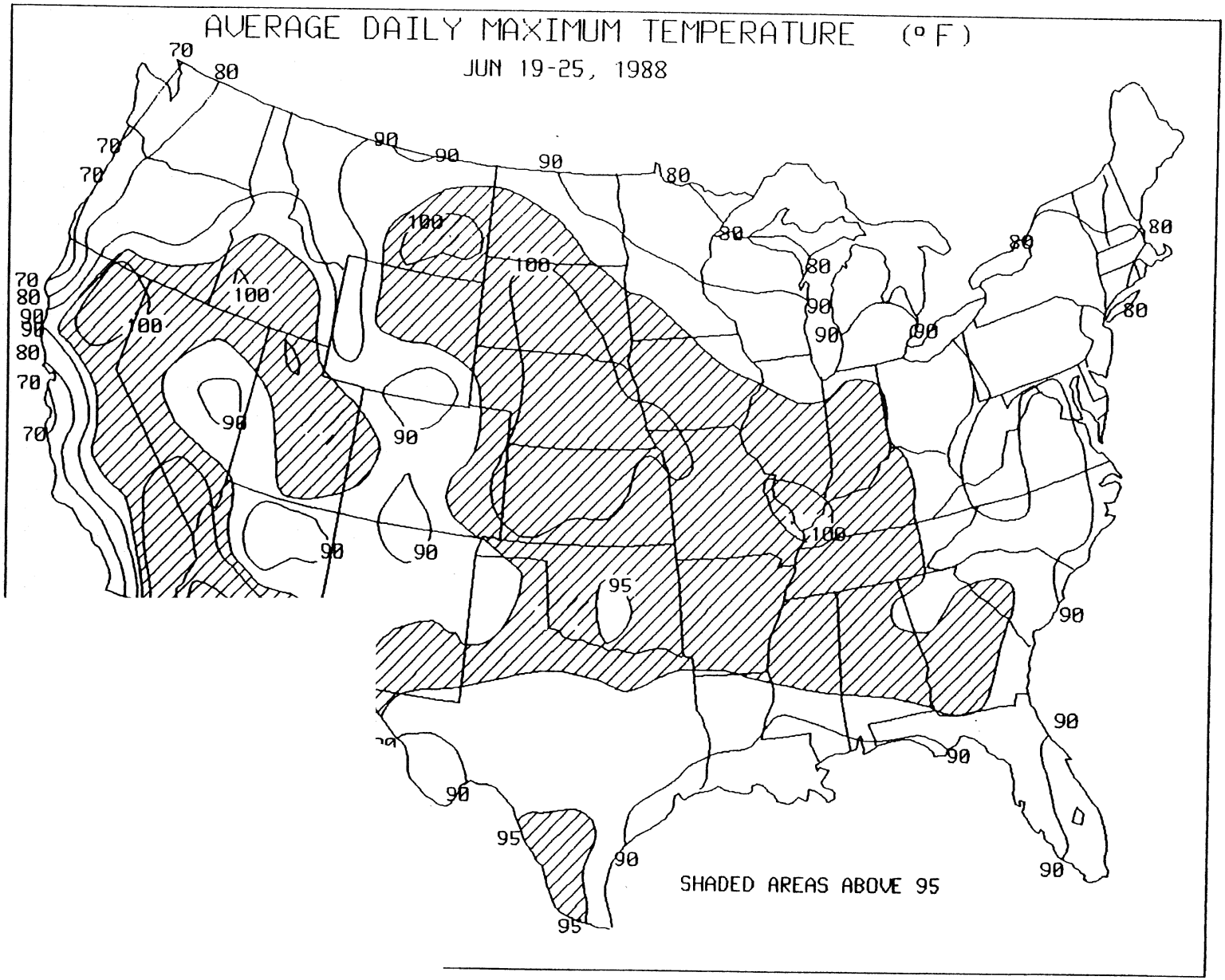
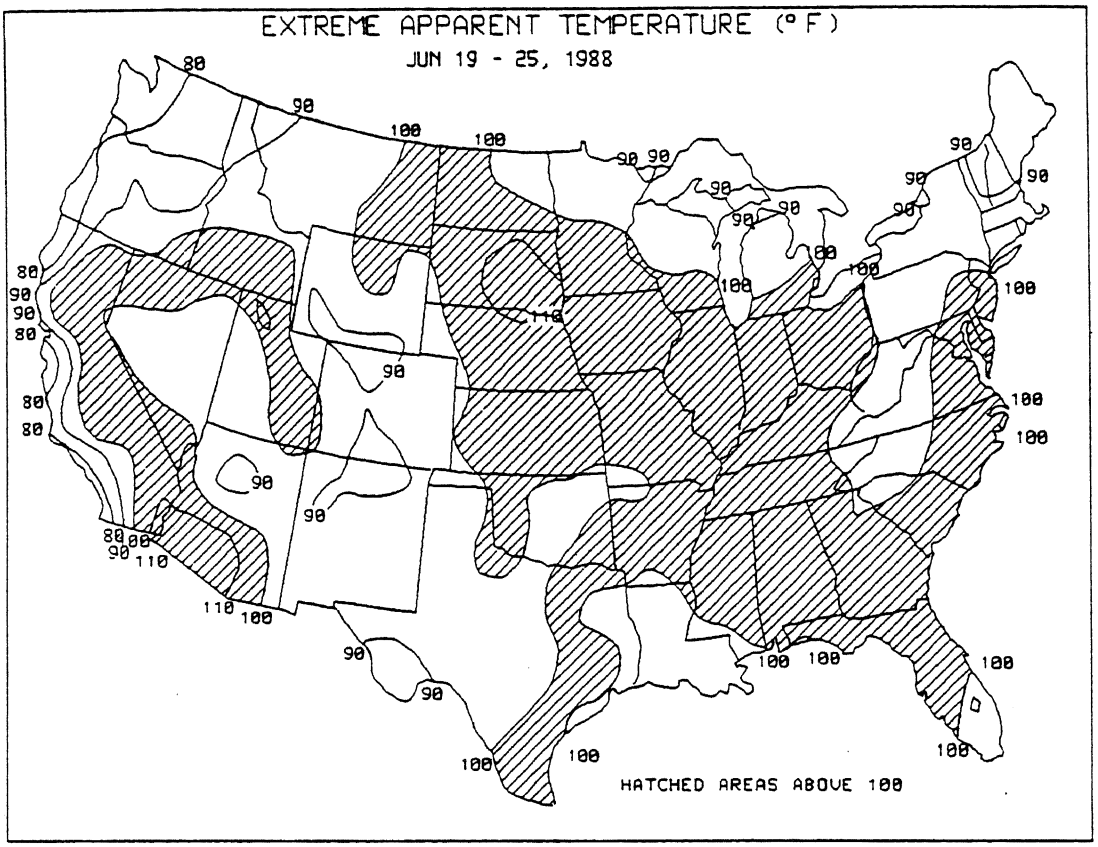


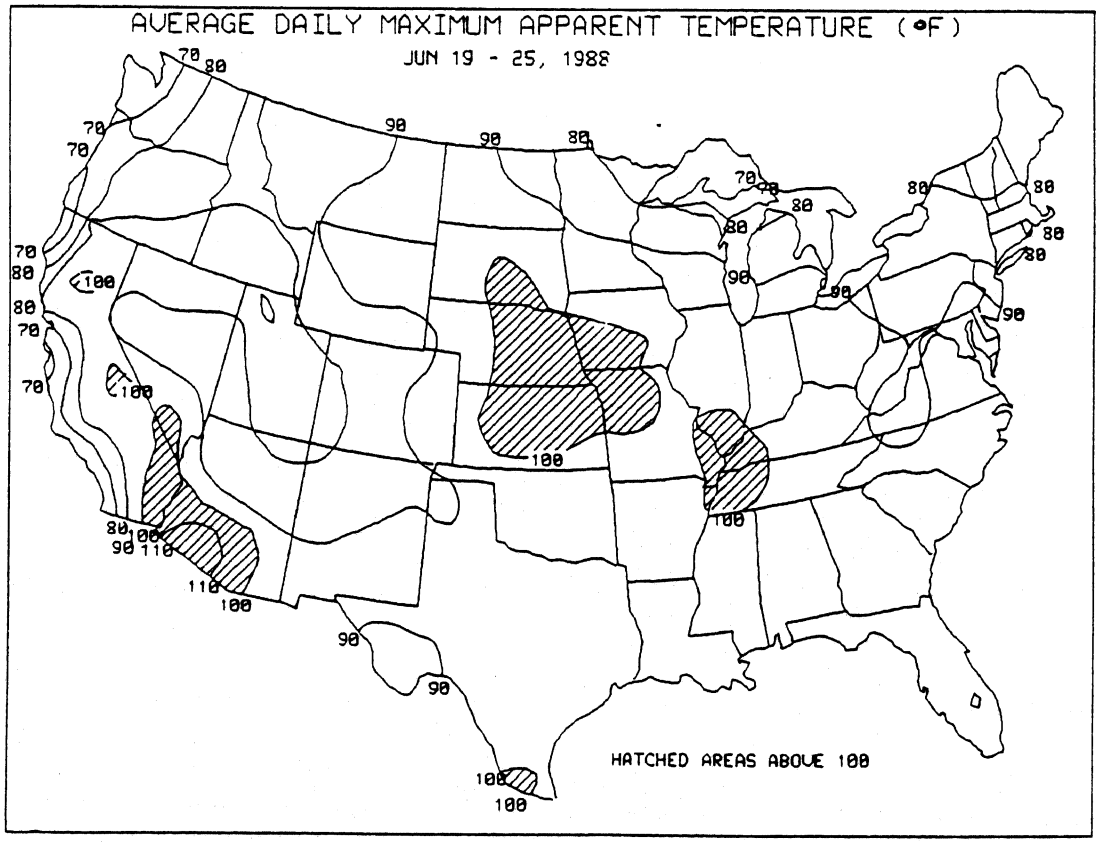
Figure 2. Temperature departure from normal (^{o}F) during last week (6/19-6/25/88). Almost the entire country observed above normal temperatures with departures more than +15^{o}F in parts of the northern Rockies and northern Great Plains.



portions of Montana, the central Great Plains, and southern
of the desert Southwest. The unseasonably hot weather
onditions by greatly increasing the evaporative rates of



Extreme apparent temperatures (°F) exceeded 105°F ("dangerous" category) in portions of the northern and central Great Plains and Midwest, while the daily average maximum apparent temperature surpassed 100°F in the central Great Plains and Midwest regions. For further details on apparent temperature categories, refer to the next page.



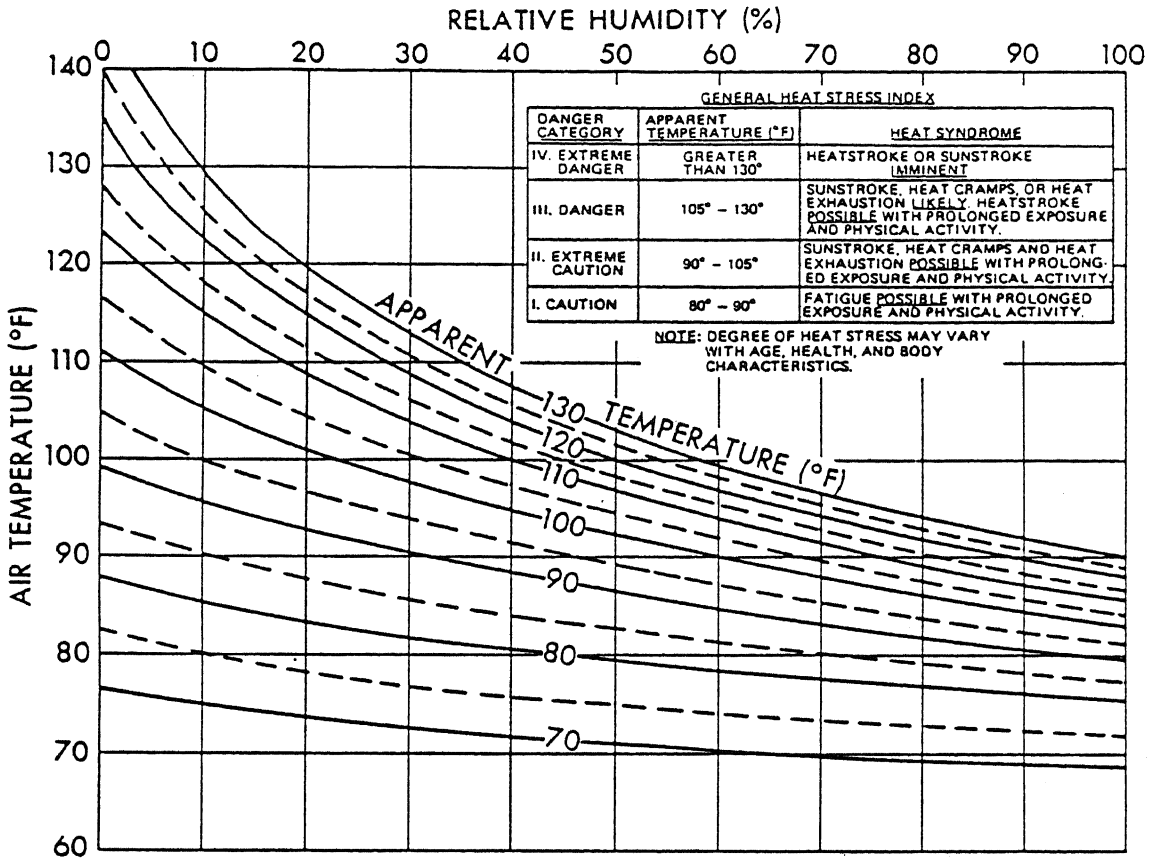


Fig. 1 Relationship of Air Temperature and Relative Humidity to Apparent Temperature, (after Steadman, 1979). This graph can be used for various combinations of Temperature and Relative Humidity. For areas with Low Relative Humidities, the Apparent Temperature tends to be lower than the Air Temperature.

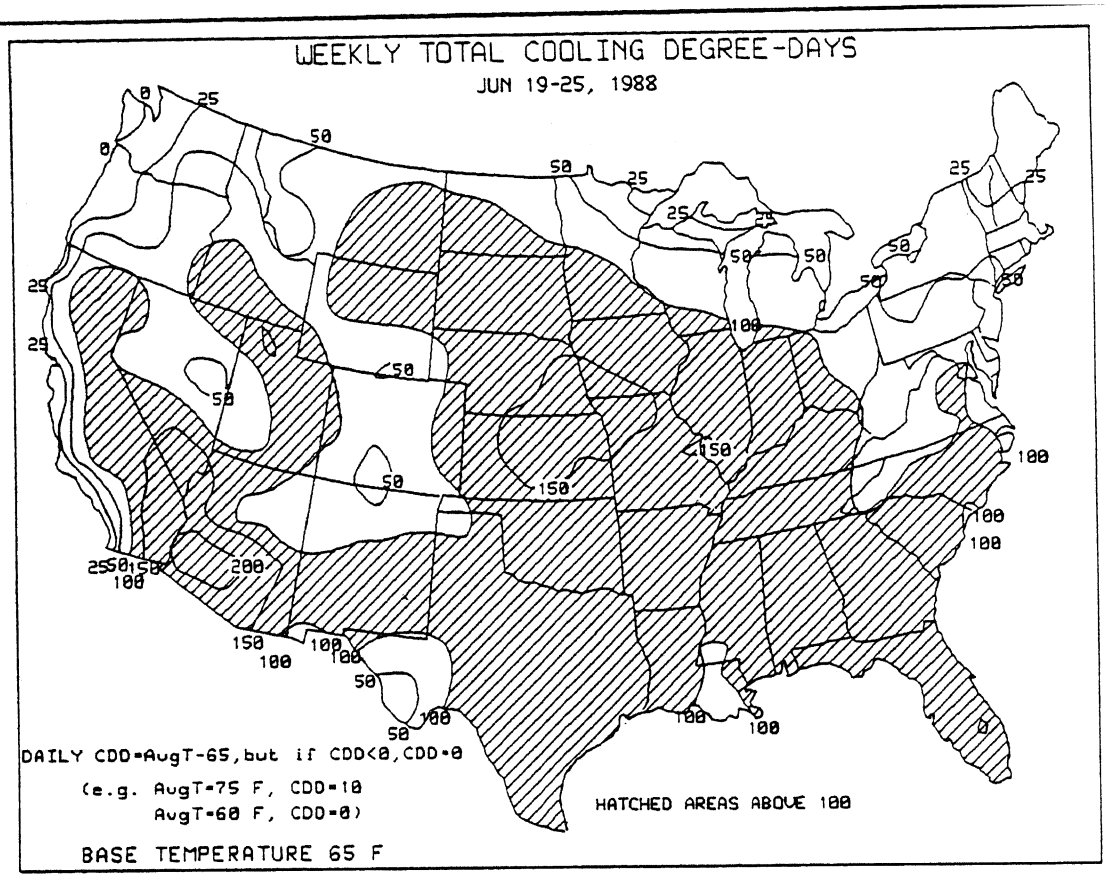
RELATIVE HUMIDITY (%)

AIR TEMPERATURE (°F) — APPARENT TEMPERATURE

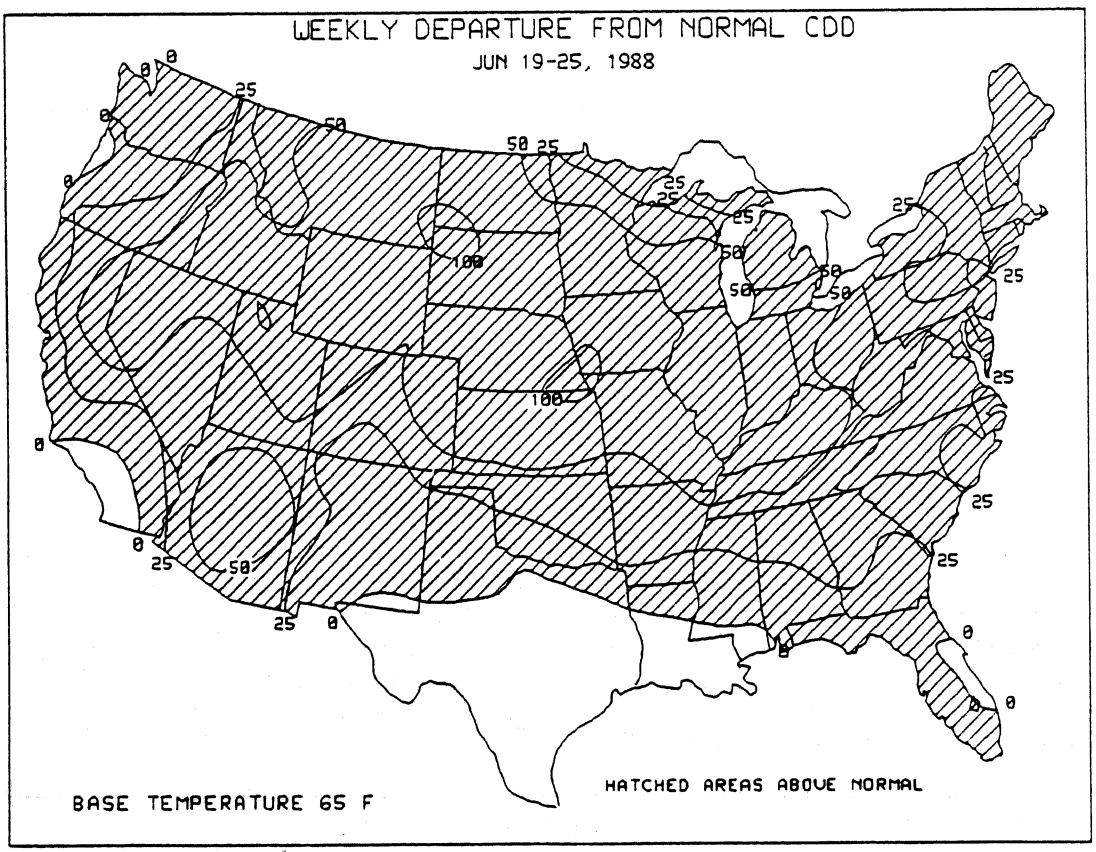
AIR TEMP (°F)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
140	125																				
135	120	128																			
130	117	122	131																		
125	111	116	123	131	141																
120	107	111	116	123	130	139	148														
115	103	107	111	115	120	127	135	143	151												
110	99	102	105	108	112	117	123	130	137	143	150										
105	95	97	100	102	105	109	113	118	123	129	135	142	149								
100	91	93	95	97	99	101	104	107	110	115	120	126	132	138	144						
95	87	88	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136				
90	83	84	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122		
85	78	79	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102	105	108
80	73	74	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	89	91
75	69	69	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80
70	64	64	65	65	66	66	67	67	68	68	69	69	70	70	70	70	71	71	71	71	72

Table 1 Air Temperature and Relative Humidity versus Apparent Temperature. (As interpolated from Fig. 1).

Reference: Steadman, R.G., 1979: The assessment of sultriness. Part I: A temperature-humidity index based on human physiology and clothing science. Journal of Applied Meteorology 18: 861-873. Figures provided by the National Climatic Data Center, NOAA/NESDIS.

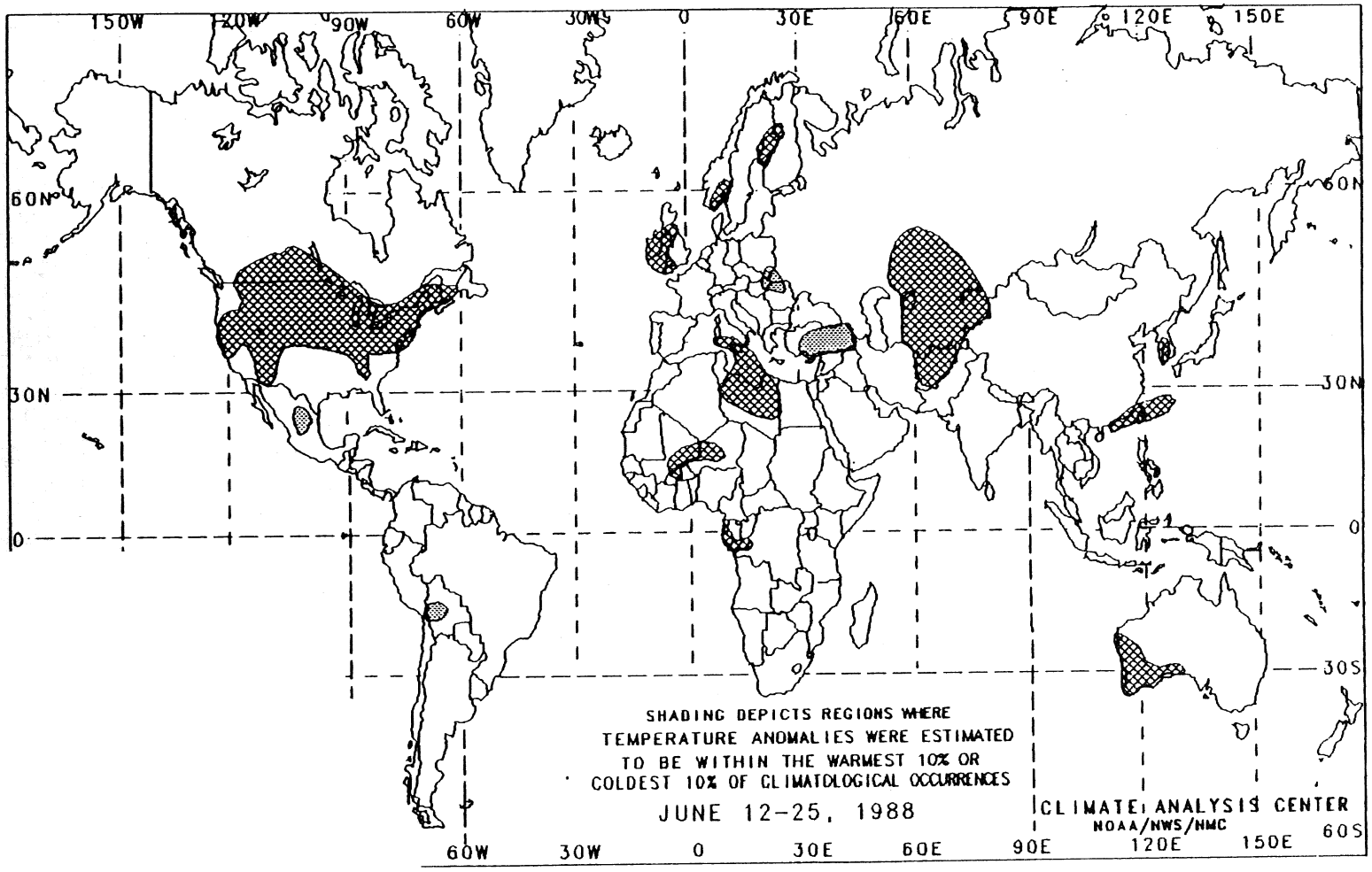


The total cooling degree days (CDD) greater than 100 covered a majority of the southern and central U.S., while most of the country experienced much above normal air conditioning demand. Departures exceeded +100 CDD in parts of the northern and central Great Plains in response to the region's unusually hot weather.



GLOBAL TEMPERATURE ANOMALIES

2 Week



approximately 2500
s of temperature
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nomalies.

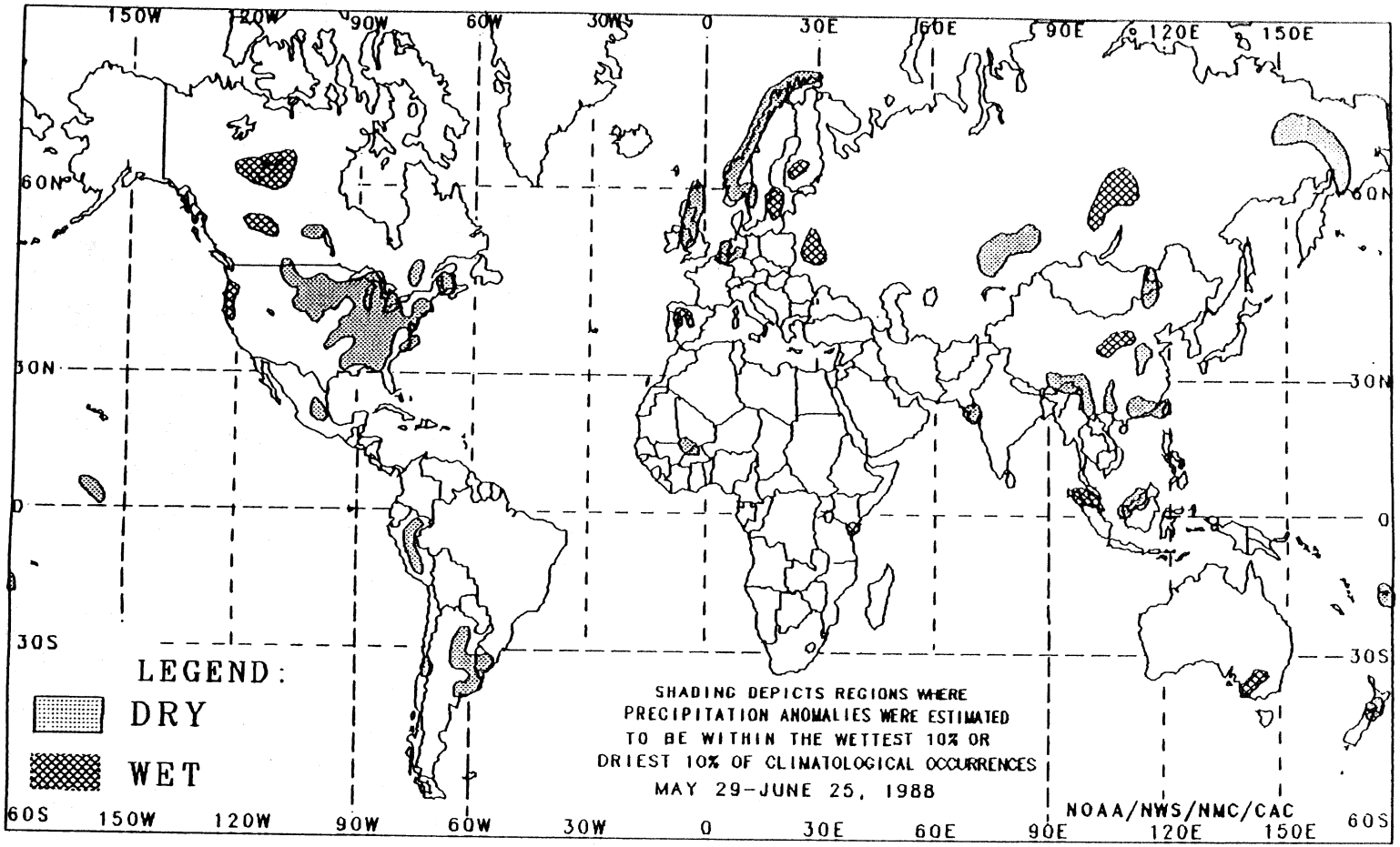
magnitude of

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining precentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of two week temperature anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

GLOBAL PRECIPITATION ANOMALIES

4 Week



The anomalies on this chart are based on approximately 2500 observing stations for which at least 27 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

In climatologically arid regions where normal precipitation for the four week period is less than 20 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted unless the total four week precipitation exceeds 50 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of four week precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

SPECIAL CLIMATE SUMMARY

Climate Analysis Center, NMC
National Weather Service, NOAA

UNITED STATES SEASONAL CLIMATE SUMMARY
SPRING (MARCH 1988 - MAY 1988)

Spring was characterized by unusually warm, dry conditions across the north central United States, below normal precipitation in the central and southern states and on the coast of California, cool weather in northern Florida and southern Georgia, and above normal precipitation in northwestern Texas. Hawaii experienced near normal temperatures and precipitation during the spring months. Near normal precipitation totals were reported in most of the West, along the Gulf Coast, and throughout the Middle Atlantic States east of the Appalachian Mountains.

Temperature departures from normal as great as 6°F above normal occurred across parts of Montana, North Dakota, and Minnesota (see Table 1 and Figures 1 and 2). The above normal temperatures have persisted across the north central states throughout spring except for near normal conditions in Minnesota and Wisconsin during April. Warm weather prevailed across most of the western half of the United States in March and April but near normal conditions were reported in May. Southern Arizona remained abnormally warm during the entire three months. After an unusually mild winter Alaska experienced above normal temperatures throughout most of spring. In the East below normal temperatures were reported in northeastern Florida during March, dominated the Middle Atlantic States east of the Appalachians during April, and prevailed across the Southeast during May. Temperatures averaged as much as 3°F below normal in northern Florida and parts of South Carolina (see Table 2).

Below normal precipitation occurred across much of the north central and east central United States from Montana and Ohio to Texas and South Carolina. Driest areas were in eastern Iowa, northwestern Illinois, and southern Wisconsin and in Tennessee, western Kentucky, and adjacent parts of Alabama, Georgia, the Carolinas, southeastern Illinois, and southwestern Indiana (see Table 3 and Figures 3 and 4). Tennessee and neighboring states were driest in March but experienced below normal precipitation throughout spring. Iowa, southern Wisconsin, and northwestern Illinois reported near normal rainfal in March but increasingly large precipitation deficits in April and May. The north central states from Montana to Minnesota observed below normal precipitation totals in April and May after near or above normal amounts during March. After a dry winter the Pacific Northwest experienced near normal precipitation in March and above normal precipitation during April and May. The coast of California observed below normal precipitation in March. Above normal precipitation was reported by stations in northwestern Texas throughout the three spring months (see Table 4).

Table 1. Seasonal average temperature departures of +4.0°F or more.

Station	Avg T	Dep Nml	Station	Avg T	Dep Nml
Glasgow, MT	48	+6	Reno, NV	51	+4
Havre, MT	48	+6	Waterloo, IA	50	+4
Williston, ND	47	+6	Sioux Falls, SD	49	+4
Alexandria, MN	46	+6	Mason City, IA	49	+4
Dickinson, ND	46	+6	Pierre, SD	49	+4
Jamestown, ND	46	+6	Worland, WY	49	+4
Minot, ND	46	+6	Huron, SD	48	+4
Cut Bank, MT	45	+6	Rapid City, SD	48	+4
Talkeetna, AK	38	+6	Aberdeen, SD	47	+4
Fairbanks, AK	35	+6	Sheridan, WY	47	+4
Phoenix, AZ	74	+5	Great Falls, MT	47	+4
Spencer, IA	50	+5	Eau Claire, WI	47	+4
Minneapolis, MN	49	+5	Lander, WY	46	+4
Billings, MT	49	+5	St. Cloud, MN	46	+4
Miles City, MT	49	+5	Helena, MT	46	+4
Fargo, ND	46	+5	Kalispell, MT	46	+4
Bozeman, MT	45	+5	Bismarck, ND	45	+4
Kenai, AK	37	+5	Juneau, AK	43	+4
Bettles, AK	28	+5	Butte, MT	41	+4
Tuscon, AZ	69	+4	Cordova, AK	40	+4
George AFB, CA	61	+4	Anchorage, AK	39	+4
Burlington, IA	54	+4	Valdez, AK	39	+4
Ottumwa, IA	54	+4	Homer, AK	39	+4
Des Moines, IA	53	+4	Gulkana, AK	33	+4
Norfolk, NE	52	+4	McGrath, AK	31	+4
Sioux City, IA	52	+4	Northway, AK	30	+4
Omak, WA	52	+4	Nome, AK	24	+4

Table 2. Seasonal average temperature departures of -2.0°F or less.

Station	Avg T	Dep Nml	Station	Avg T	Dep Nml
St. Paul Is., AK	26	-3	San Angelo, TX	64	-2
Shaw AFB, SC	61	-3	Tallahassee, FL	65	-2
Jacksonville, FL	66	-3	England AFB, LA	65	-2
Gainesville, FL	67	-3	Lufkin, TX	65	-2
Adak, AK	36	-2	Brunswick, GA	65	-2
Petersburg, WV	52	-2	Apalachicola, FL	66	-2
Pax. River NAS, MD	53	-2	Mobile, AL	66	-2
Amarillo, TX	54	-2	Houston, TX	67	-2
Gage, OK	55	-2	Daytona Beach, FL	68	-2
Knoxville, TN	57	-2	Victoria, TX	69	-2
Wilmington, NC	61	-2	Tampa, FL	70	-2
El Paso, TX	62	-2	Corpus Christi, TX	70	-2
Macon, GA	63	-2	Key West, FL	75	-2

Table 3. Selected stations that were abnormally dry during Spring 1988 (Normal precipitation more than 6 inches AND percent of normal precipitation less than 50%).

Station	Amt(in)	%Nml	Nml(in)	Station	Amt(in)	%Nml	Nml(in)
Corpus Chr., TX	2.37	39.4	6.01	Waterloo, IA	4.70	47.6	9.88
Spencer, IA	2.44	30.6	7.99	Ottumwa, IA	4.78	49.1	9.73
San Antonio, TX	2.50	32.5	7.68	Waco, TX	5.02	48.0	10.46
Des Moines, IA	2.85	30.6	9.31	Elkins, WV	5.20	46.7	11.13
Cedar Rapids, IA	3.02	28.2	10.71	Dubuque, IA	5.49	47.6	11.52
Longview, TX	3.09	22.3	13.87	Lufkin, TX	5.52	46.1	11.96
Burlington, IA	3.20	31.1	10.29	Asheville, NC	5.83	47.5	12.29
Detroit, MI	3.53	42.0	8.41	Evansville, IN	5.99	46.0	13.02
Green Bay, WI	3.69	48.2	7.67	Nashville, TN	6.13	42.2	14.55
Selfridge AFB, MI	3.75	49.4	7.60	Athens, GA	6.33	43.4	14.58
Victoria, TX	3.81	45.2	8.42	Chattanooga, TN	7.34	49.3	14.89
Findlay, OH	4.50	45.6	9.86	Monroe, LA	7.48	49.2	15.20
College Stn., TX	4.56	41.1	11.08	Birmingham, AL	8.01	49.8	16.09
Quincy, IL	4.63	40.8	11.37				

Table 4. Selected stations that were abnormally wet during Spring 1988 (Total precipitation more than six inches AND percent of normal precipitation more than 150%; OR, total precipitation more than 16 inches).

Station	Amt(in)	%Nml	Station	Amt(in)	%Nml
Yakutat, AK	42.87	157.2	W. Palm Beach, FL	16.09	135.6
Quillayute, WA	34.40	140.9	North Bend, OR	16.07	110.5
Hilo/Lyman, HI	33.74	93.8	Astoria, OR	15.94	107.3
Annette Island, AK	29.79	121.1	Wilmington, NC	15.15	134.8
Mt. Washington, NH	29.24	135.3	Dulles Airport, VA	14.98	154.5
Cordova/Mile 13, AK	23.02	135.1	Bellingham, WA	11.36	153.3
McComb, MS	21.13	***	Key West, FL	10.44	173.6
New Orleans NAS, LA	21.00	***	Akron, CO	9.74	184.5
Kokee, Kauai, HI	20.98	147.6	Amarillo, TX	9.45	201.9
New Orleans (MSY), LA	19.83	139.3	Homer, AK	9.18	249.1
New Orleans (NEW), LA	17.50	***	Scottsbluff, NE	8.57	169.4
Kodiak, AK	17.58	137.1	Walla Walla, WA	7.52	168.9
Valdez, AK	17.43	167.3	Cannon AFB, NM	6.35	185.3
Sitka, AK	16.75	93.6			

(Note: Asterisks indicate station has no normals).

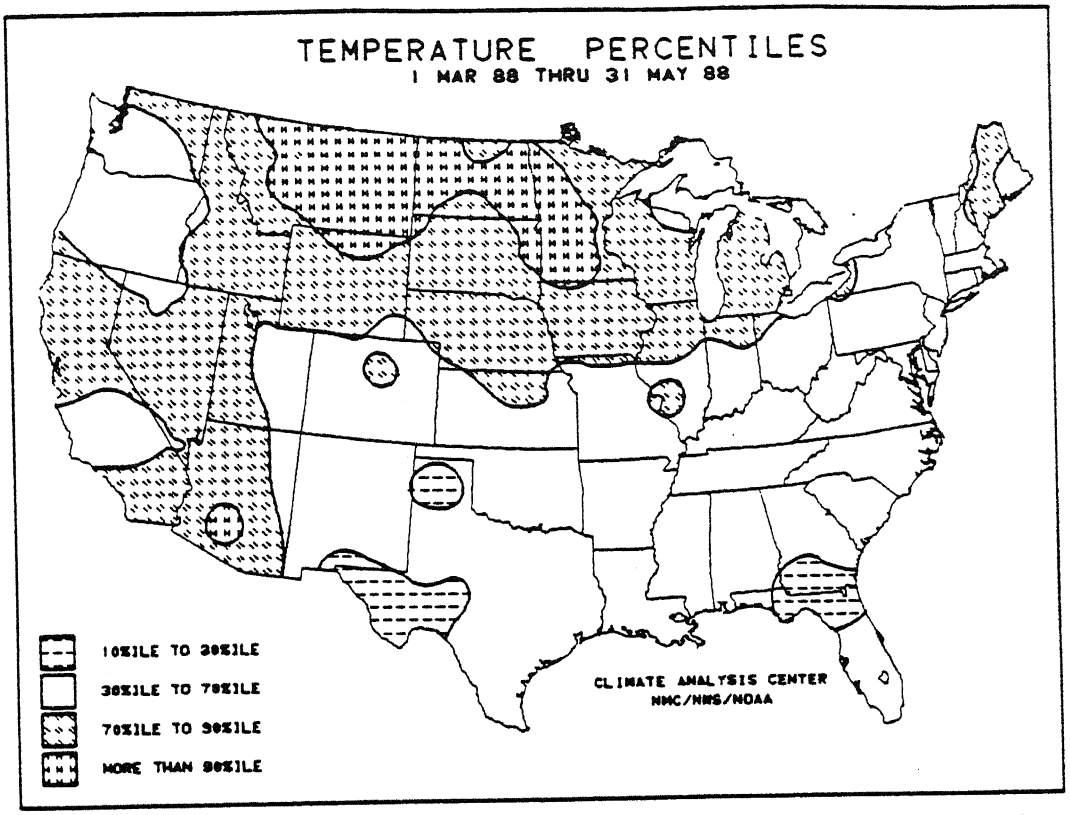


Figure 1. Average Temperature Percentiles For Spring 1988. Statistically Montana, North Dakota, and Minnesota observed one of their warmest springs.

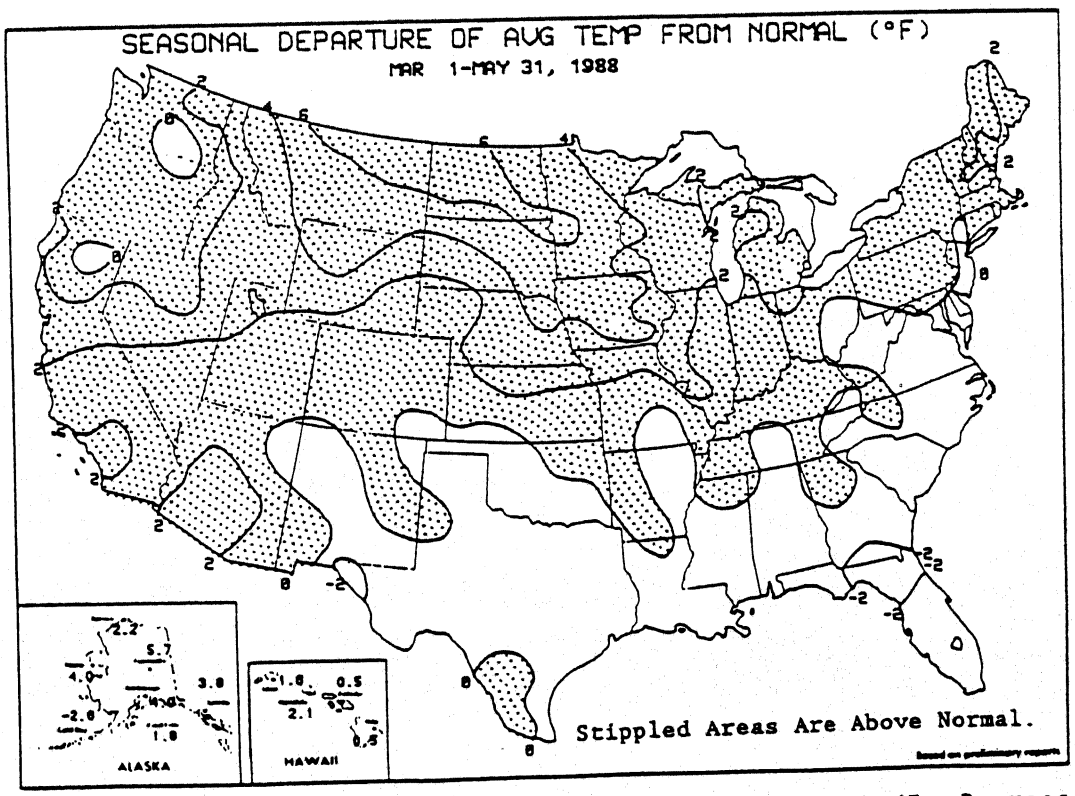


Figure 2. Departure from Normal Average Temperature (In Degrees Fahrenheit) during Spring 1988. Unseasonably warm weather covered the northern Great Plains and the Southwest.

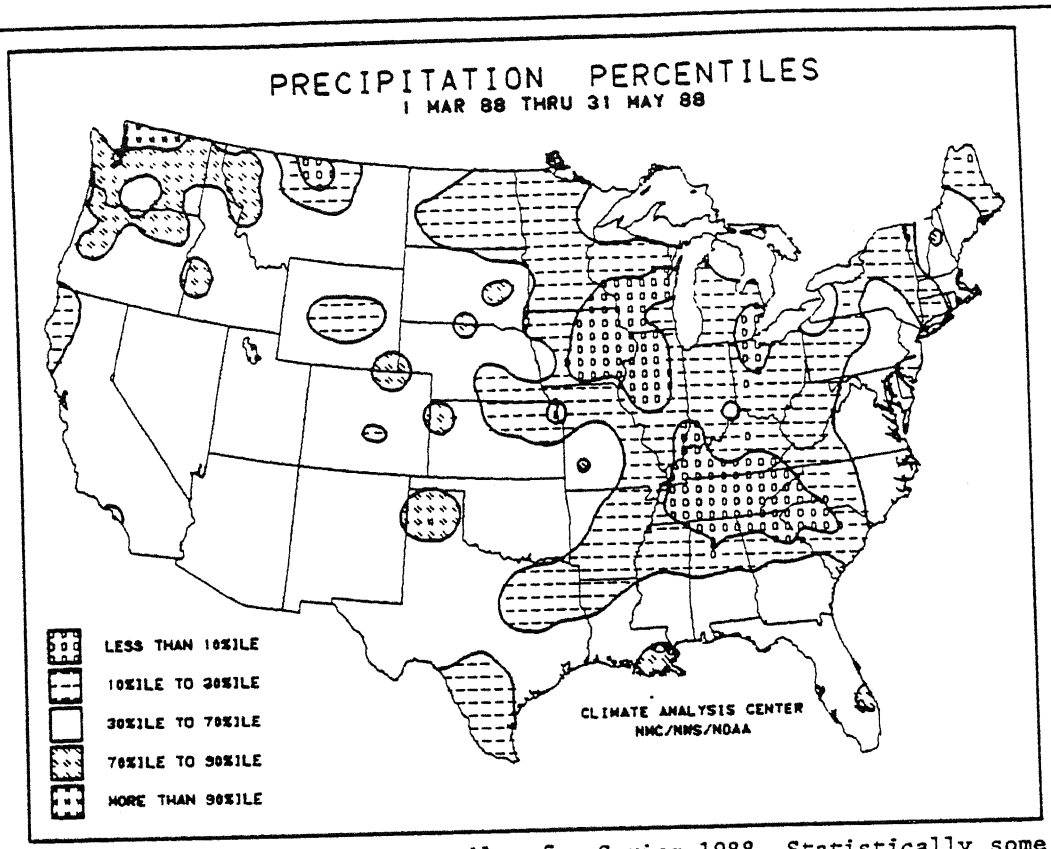


Figure 3. Precipitation Percentiles for Spring 1988. Statistically some areas in the Midwest and Southeast experienced one of their driest spring seasons.

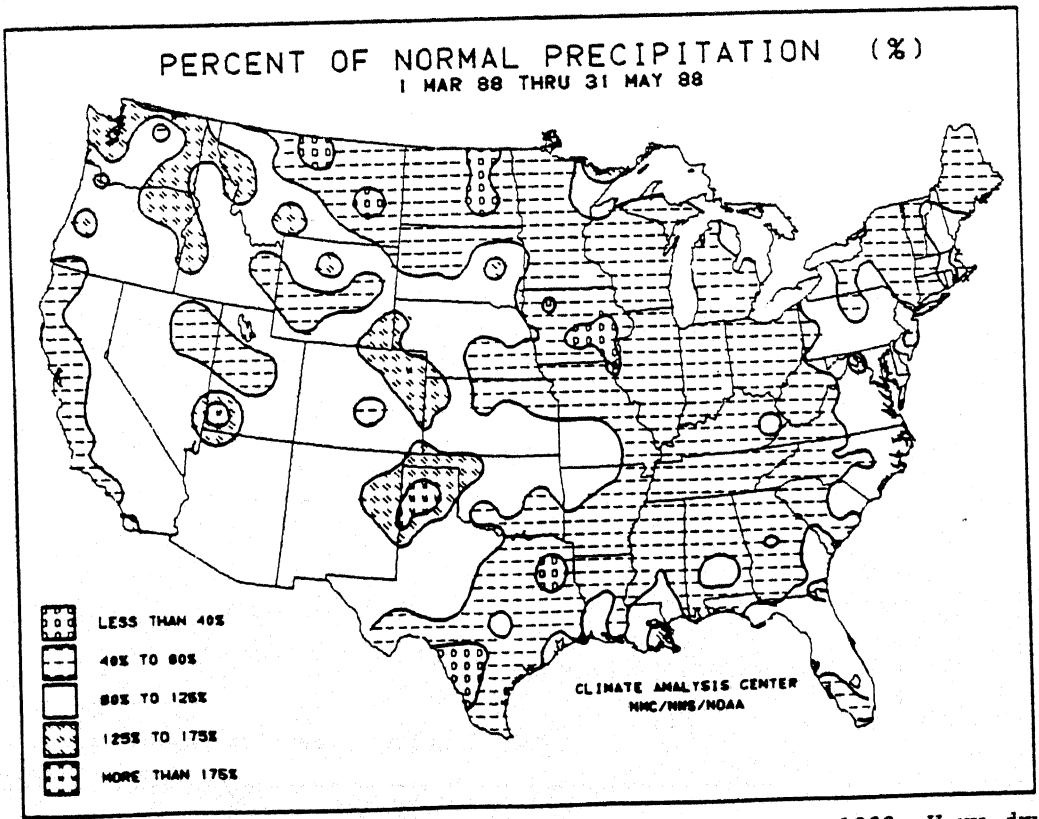
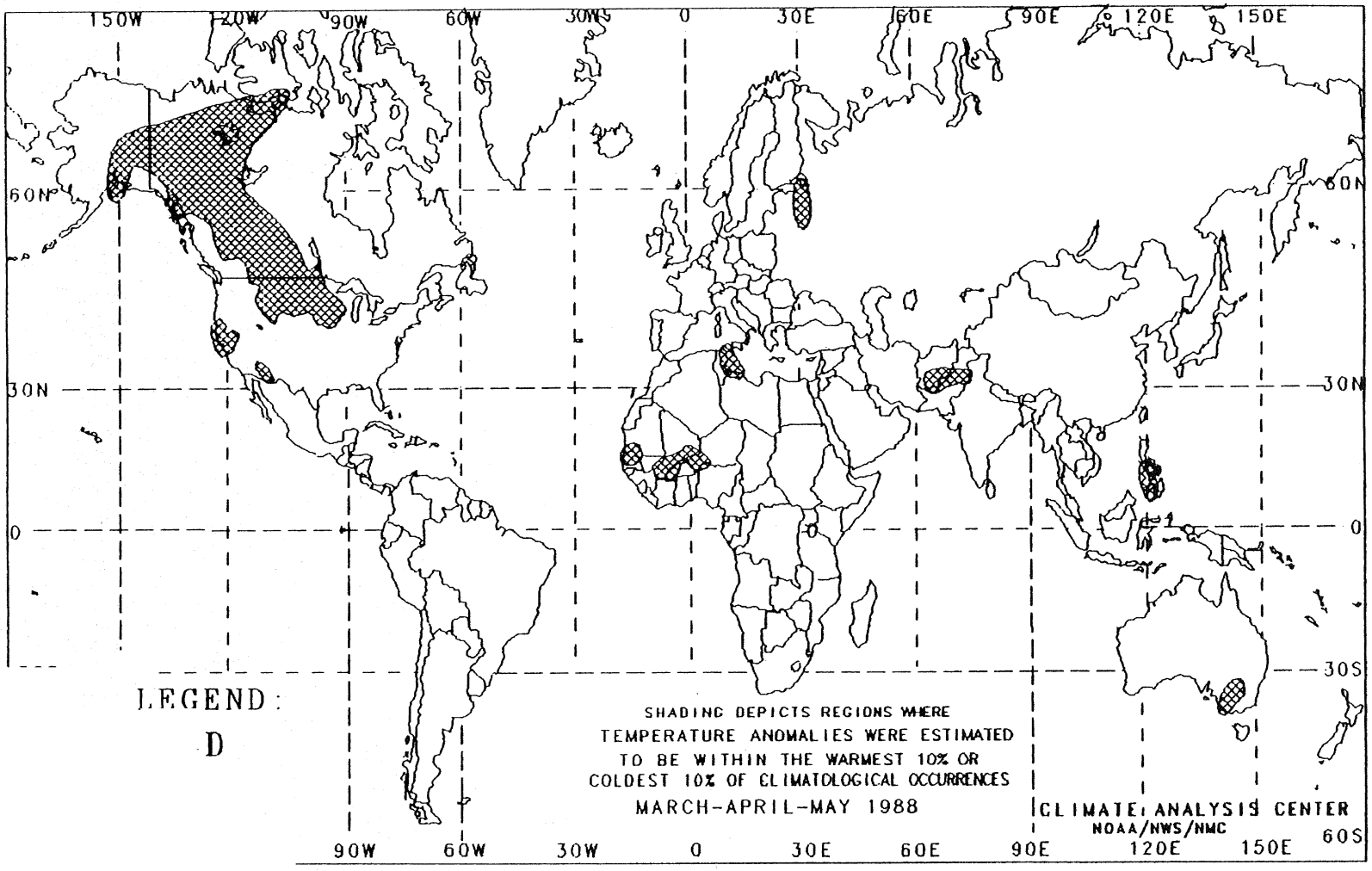


Figure 4. Percent of Normal Precipitation during Spring 1988. Very dry conditions covered much of the central and eastern states. Above normal precipitation was reported on northwestern Texas.

GLOBAL TEMPERATURE ANOMALIES

3 Month



are based on approximately 2500
t least 78 days of temperature
optic reports. Many stations do not
so many night time observations are
issing observations the estimated
a bias. This in turn may have
extent of some warm anomalies.

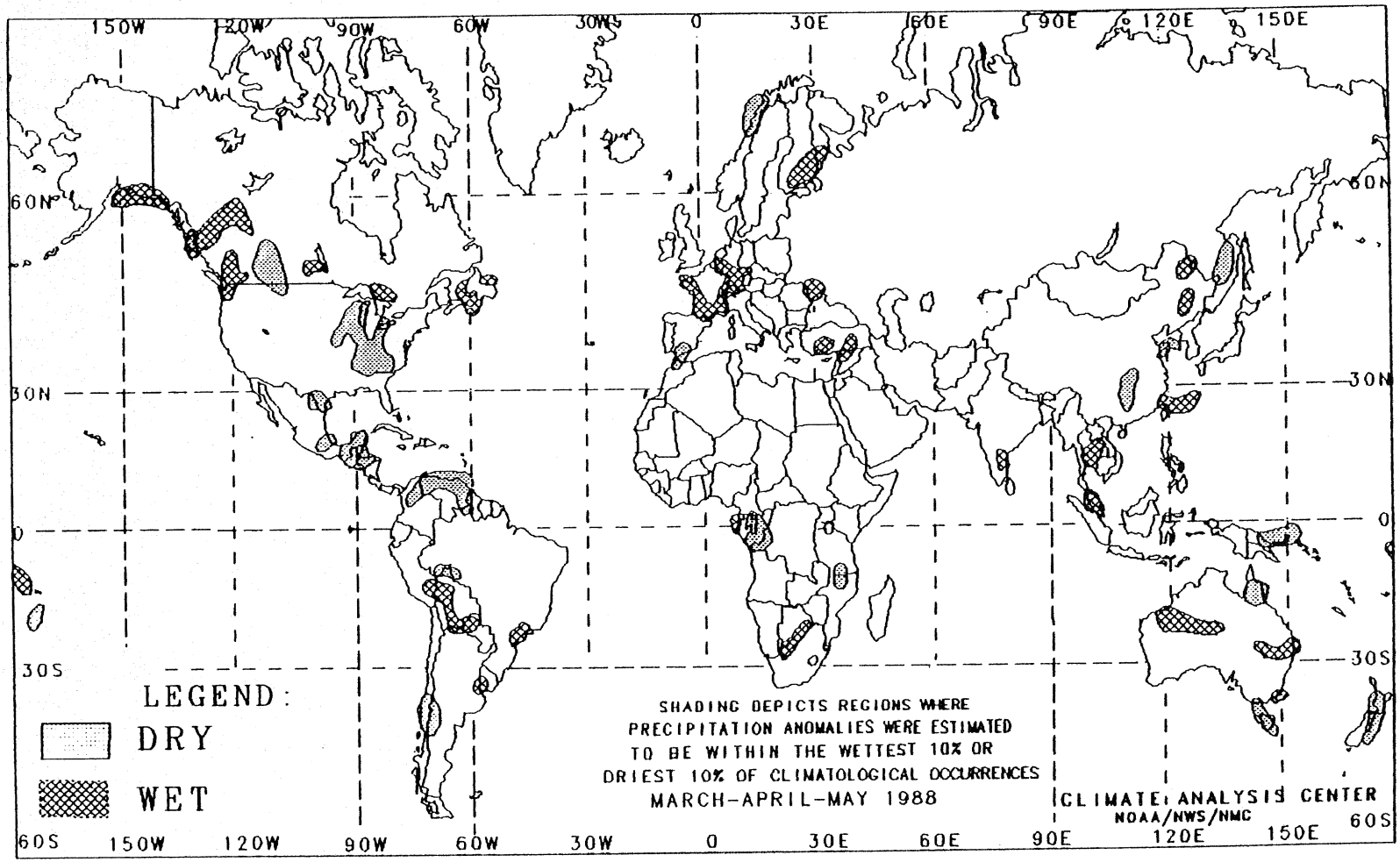
depicted unless the magnitude of
eeds 1.5°C.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining precentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of three month temperature anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

GLOBAL PRECIPITATION ANOMALIES

3 Month



The anomalies on this chart are based on approximately 2500 observing stations for which at least 81 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

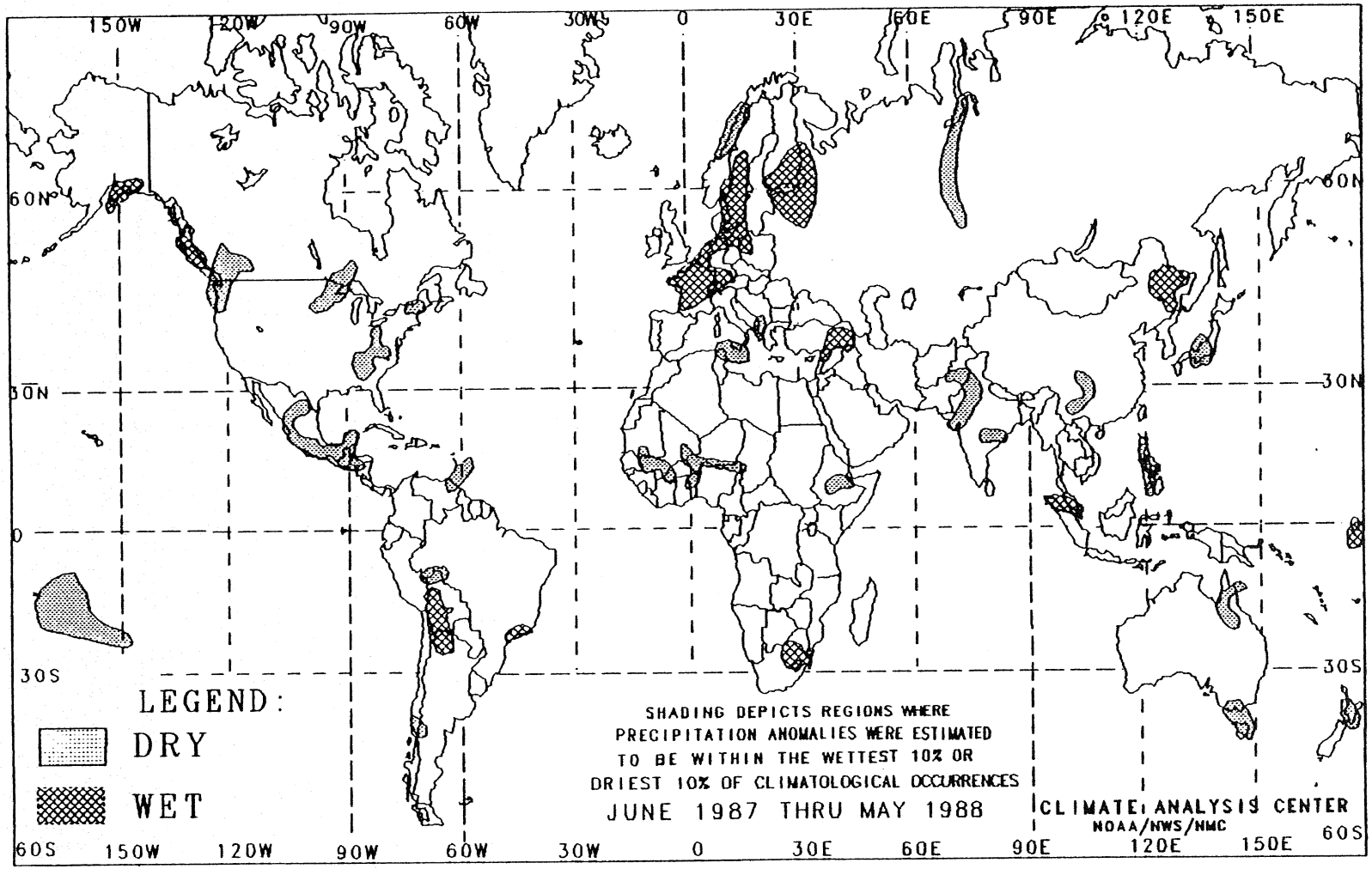
In climatologically arid regions where normal precipitation for the three month period is less than 50 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted unless the total three month precipitation exceeds 125 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of three month precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

GLOBAL PRECIPITATION ANOMALIES

12 Month

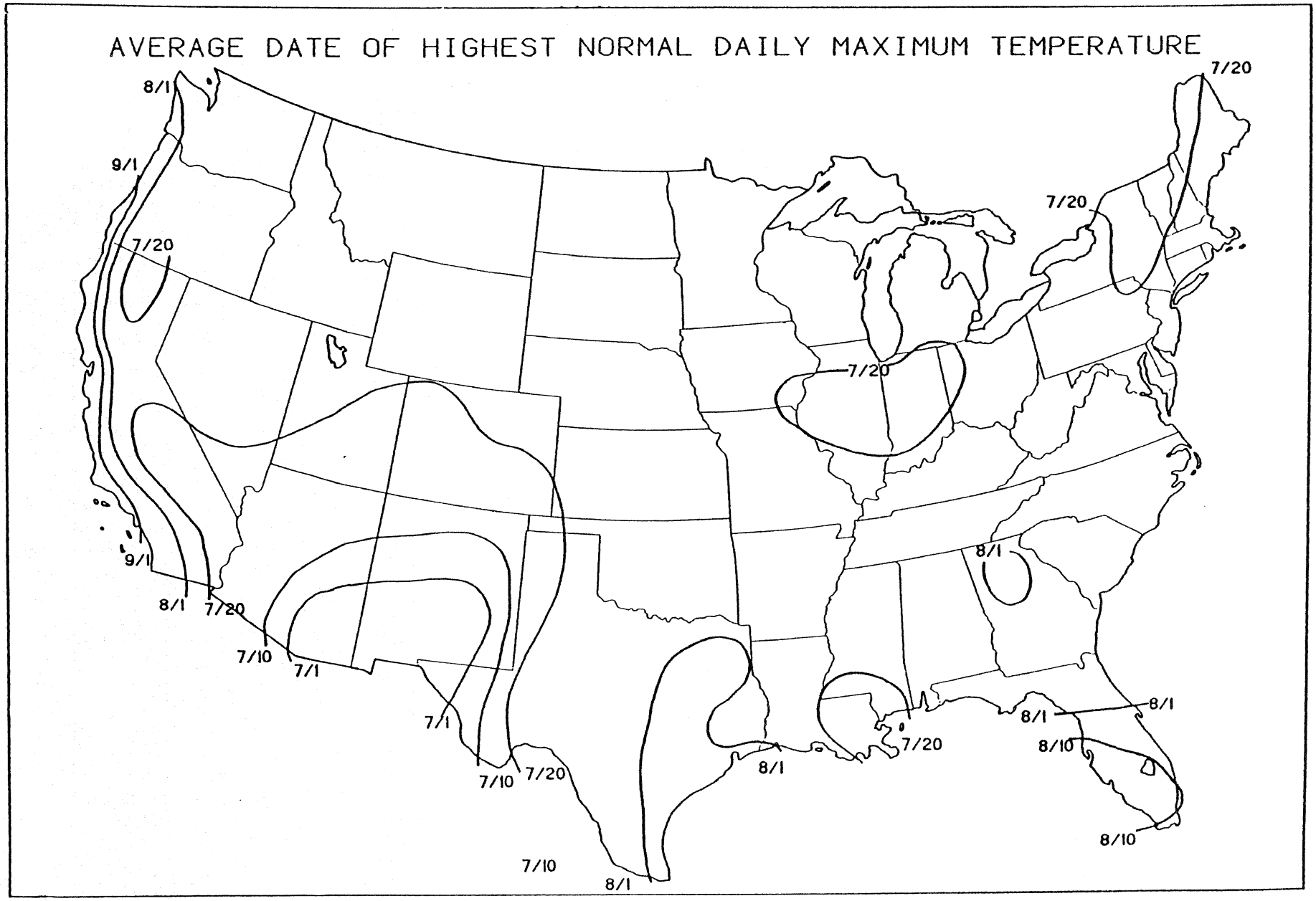


The anomalies on this chart are based on approximately 2500 observing stations for which at least 350 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

In climatologically arid regions where normal precipitation for the twelve month period is less than 100 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of twelve month precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.



Based upon 1951-1980 data, the above chart depicts the approximate date of the contiguous United States maximum temperatures. Much of the northern and central U.S. normally reports its highest readings in mid-July, while southern Arizona and New Mexico usually observes their maximum temperatures around July 1. By late July or early August, parts of coastal Texas and southern Florida normally record their highest readings, while the West Coast usually reports its greatest temperatures by September 1.